

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Canceled).
2. (Currently Amended) A method for delivering a closure element to seal an opening through tissue, the method comprising:
 - inserting a distal end of an elongate member into an opening through tissue, the elongate member having a distal end, a proximal end, a lumen extending from the distal end to the proximal end, and a skin overlying at least a portion of the outer surface of the elongate member between the distal end and the proximal end and at least partially overlying a carrier assembly slidably disposed on the elongate member and carrying the closure element;
 - deploying one or more medical devices through the lumen of the elongate member;
 - following removal of the one or more medical devices from within the lumen, locating a portion of a separate actuator assembly in fluid communication with the lumen of the elongate member and advancing the carrier assembly distally along the elongate member from the proximal end towards the distal end of the elongate member with the actuator assembly, thereby advancing the closure element towards the distal end of the elongate member and causing the skin to separate from the outer surface of the elongate member;
 - engaging tissue adjacent the distal end of the elongate member with a plurality of tissue engaging elements on the closure element; and
 - withdrawing the elongate member from the opening, thereby leaving the closure element to close the opening.
3. (Original) The method of claim 2, wherein the skin comprises a weakened region extending towards the distal end of the elongate member, the weakened region tearing as the carrier assembly is advanced towards the distal end of the elongate member.
4. (Previously Presented) The method of claim 2, wherein a portion of the skin is folded over itself to define a flap, the flap extending generally axially along the outer surface of the elongate member and overlying an adjacent region of the skin, and wherein the flap is released

from the adjacent region as the carrier assembly is advanced towards the distal end of the elongate member, thereby allowing the skin to separate from the outer surface.

5. (Original) The method of claim 2, wherein the skin expands to a cross-section that is larger than a cross-section of the elongate member as the carrier assembly is advanced towards the distal end.

6. (Canceled).

7. (Previously Presented) The method of claim 2, wherein the skin comprises a skin outer surface that is substantially slippery.

8. (Original) The method of claim 2, wherein the opening through tissue extends through one or more layers of fascia, and wherein the skin facilitates advancing the closure element through the one or more layers of fascia.

9. (Previously Presented) The method of claim 2, wherein the opening through tissue communicates with a blood vessel, and wherein leaving the closure element to close the opening comprises leaving the closure element to substantially seal the opening from blood flow therethrough with the closure element.

10-13. (Canceled).

14. (Currently Amended) The method of claim 2, wherein the actuator assembly comprises an actuator member, the method further comprising inserting a distal end of ~~[[an]]the~~ actuator member into the elongate member to cooperate with the carrier assembly ~~between the proximal end of the closure element and the outer surface of the elongate member until the distal end of the actuator member is coupled with the closure element~~ and advancing the actuator member in a distal direction to advance the carrier assembly along the elongate member.

15. (Previously Presented) The method of claim 14, further comprising manipulating the actuator member to deploy the closure element and engage the tissue adjacent the distal end of the elongate member.

16. (Previously Presented) The method of claim 2, wherein engaging tissue adjacent the distal end of the elongate member with tissue engaging elements on the closure element comprises deploying the closure element from the carrier assembly and elongate member, the closure element comprising a generally annularly-shaped body comprising proximal and distal ends and a plurality of tissue engaging portions extending from the distal end, the closure element being configured to move from a first expanded configuration when on the carrier assembly to a second contracted configuration when deployed, thereby drawing tissue around the opening together.

17-19. (Canceled).

20. (Currently Amended) A method for delivering a closure element to seal an opening through tissue, the method comprising:

inserting a distal end of the elongate member into an opening through tissue along a guidewire, the elongate member having a distal end, a proximal end, a lumen extending from the proximal end to the distal end, and a skin overlying at least a portion of the outer surface of the elongate member between the distal end and proximal end and at least partially overlying [[the]]a carrier assembly;

deploying one or more medical devices through the lumen of the elongate member;

following removal of the one or more medical devices from within the lumen, selectively connecting a separate actuator assembly to the elongate member and locating a portion of the separate actuator assembly in fluid communication with the lumen of the elongate member and inserting a distal end of an obturator through the lumen of the elongate member and through a portion of the actuator assembly and through the opening through tissue;

advancing the carrier assembly distally along the elongate member from the proximal end towards the distal end of the elongate member with the actuator assembly, thereby advancing the closure element towards the distal end of the elongate member and causing the skin to separate from the outer surface of the elongate member;

engaging tissue adjacent the distal end of the elongate member with a plurality of tissue engaging elements on the closure element; and

withdrawing the elongate member from the opening, thereby leaving the closure element to close the opening.

21. (Previously Presented) The method of claim 20, wherein engaging tissue adjacent the distal end of the elongate member with tissue engaging elements on the closure element comprises deploying the closure element from the carrier assembly and elongate member, the closure element comprising a generally annularly-shaped body comprising proximal and distal ends and a plurality of tissue engaging portions extending from the distal end, the closure element being configured to move from a first expanded configuration when on the carrier assembly to a second contracted configuration when deployed, thereby drawing tissue around the opening together.

22. (Previously Presented) The method of claim 20, wherein the obturator comprises an expandable distal portion coupled with an elongate portion extending proximally for manipulation by a user.

23. (Previously Presented) The method of claim 22, further comprising retracting the elongate portion of the obturator in a proximal direction to expand the expandable distal portion distal of the opening through tissue to stabilize or secure tissue surrounding the opening.

24. (Previously Presented) The method of claim 20, wherein the skin comprises a weakened region extending towards the distal end of the elongate member, the weakened region preferentially splitting as the carrier assembly is advanced towards the distal end of the elongate member.

25. (Previously Presented) The method of claim 24, wherein the weakened region comprises a thin-walled seam or a plurality of perforations to define a seam.

26. (Previously Presented) The method of claim 20, wherein the skin comprises embedded fibers to bias the skin to preferentially tear.

27. (Currently Amended) The method of claim 20, wherein the actuator assembly comprises an actuator member, the method further comprising inserting a distal end of ~~[[an]]the~~ actuator member into the elongate member to cooperate with the carrier assembly ~~between the proximal end of the closure element and the outer surface of the elongate member until the distal end of the actuator member is coupled with the closure element~~ and advancing the actuator member in a distal direction to advance the carrier assembly along the elongate member.

28. (Previously Presented) The method of claim 27, further comprising manipulating the actuator member to deploy the closure element and engage the tissue adjacent the distal end of the elongate member.

29. (Currently Amended) A method for delivering a closure element to seal an opening through tissue, the method comprising:

following positioning a guidewire through the opening through tissue, inserting a distal end of an elongate member into an opening through tissue along the guidewire, the opening communicating with a blood vessel, the elongate member having a distal end, a proximal end, a lumen extending between the proximal and distal ends, and a skin overlying at least a portion of the outer surface of the elongate member between the distal end and proximal end and at least partially overlying ~~[[the]]~~ a carrier assembly;

inserting one or more instruments through the lumen into the blood vessel to perform a therapeutic or diagnostic procedure;

following removal of the one or more instruments, including the guidewire, selectively connecting a separate actuator assembly to the elongate member and locating a portion of the separate actuator assembly in fluid communication with the lumen of the elongate member and advancing the carrier assembly distally along the elongate member from the proximal end towards the distal end of the elongate member with the actuator assembly, thereby advancing the closure element towards the distal end of the elongate member and causing the skin to separate from the outer surface of the elongate member;

engaging tissue adjacent the distal end of the elongate member with a plurality of tissue engaging elements on the closure element; and

withdrawing the elongate member from the opening, thereby leaving the closure element to close the opening and to substantially seal the opening from blood flow therethrough with the closure element.

30. (Previously Presented) The method of claim 29, wherein engaging tissue adjacent the distal end of the elongate member with tissue engaging elements on the closure element comprises deploying the closure element from the carrier assembly and elongate member, the closure element comprising a generally annularly-shaped body and a plurality of tissue engaging portions extending from the generally annularly-shaped body, the closure element being configured to move from a first expanded configuration when on the carrier assembly to a second contracted configuration when deployed, thereby drawing tissue around the opening together.

31. (Previously Presented) The method of claim 29, wherein the skin comprises a preferential splitting region extending towards the distal end of the elongate member, the preferential splitting region splitting as the carrier assembly is advanced towards the distal end of the elongate member.

32. (Previously Presented) The method of claim 29, wherein the skin comprises a flap extending generally axially along the outer surface of the elongate member and overlying an adjacent region of the skin, and wherein the flap is released from the adjacent region as the carrier assembly is advanced towards the distal end of the elongate member, thereby allowing the skin to separate from the outer surface.

33. (Previously Presented) The method of claim 29, wherein the skin expands to a cross-section that is larger than a cross-section of the elongate member as the carrier assembly is advanced towards the distal end.

34. (Previously Presented) The method of claim 29, wherein the skin is bonded to the outer surface of the elongate member by an adhesive bond or a thermal bond, and wherein the bond has sufficient strength such that the skin is peeled away from the outer surface as the carrier assembly is advanced towards the distal end.

35. (Previously Presented) The method of claim 29, wherein the skin comprises a skin outer surface that is substantially slippery.

36. (Previously Presented) The method of claim 29, wherein leaving the closure element to substantially seal the opening from blood flow therethrough with the closure element.

37. (Previously Presented) The method of claim 29, further comprising inserting a distal end of an obturator disposed within the elongate member through the opening through tissue.

38. (Previously Presented) The method of claim 37, wherein the obturator comprises an expandable distal portion coupled with an elongate portion extending proximally for manipulation by a user.

39. (Previously Presented) The method of claim 38, further comprising retracting the elongate portion of the obturator in a proximal direction to expand the expandable distal portion distal of the opening through tissue to stabilize or secure tissue surrounding the opening.